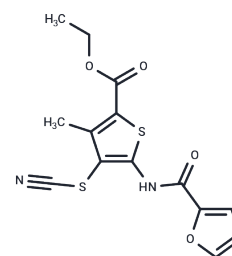


CBR-5884

Chemical Properties

CAS No. : 681159-27-3
 Formula: C₁₄H₁₂N₂O₄S₂
 Molecular Weight: 336.39
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	CBR-5884 is an selective, active of phosphoglycerate dehydrogenase (PHGDH) inhibitor with an IC ₅₀ of 33 μM. CBR-5884 inhibits de novo serine synthesis in cancer cells and is selectively toxic to cancer cell lines with high serine biosynthetic activity. CBR-5884 selectively inhibits the proliferation of melanoma and breast cancer lines that have a high propensity for serine synthesis. Biochemical characterization of the inhibitor revealed that it was a noncompetitive inhibitor that showed a time-dependent onset of inhibition and disrupted the oligomerization state of PHGDH
Targets(IC50)	Dehydrogenase
In vitro	CBR-5884 (15 or 30 μM; 3-5 days) selectively inhibits the proliferation of breast cancer lines with high serine synthesis propensity, as well as melanoma.

Solubility Information

Solubility	DMSO: 83.3 mg/mL (247.63 mM),Sonication is recommended. H ₂ O: < 0.1 mg/mL (insoluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 8.33 mg/mL (24.76 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 8.33 mg/mL (24.76 mM),Solution. 10% DMSO+90% Corn Oil: 2 mg/mL (5.95 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9727 mL	14.8637 mL	29.7274 mL
5 mM	0.5945 mL	2.9727 mL	5.9455 mL
10 mM	0.2973 mL	1.4864 mL	2.9727 mL
50 mM	0.0595 mL	0.2973 mL	0.5945 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Edouard Mullarky et al. Identification of a small molecule inhibitor of 3-phosphoglycerate dehydrogenase to target serine biosynthesis in cancers Proc Natl Acad Sci U S A, 2016 Feb 16, 113(7):1778-83.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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